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## Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 163



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#### WORLDWIDE REPORT

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WORLDWIDE AFFAIRS

#### CHILEAN GOVERNMENT STUDIES U.S. COMSAT SATELLITE TELEVISION BROADCAST

PY272110 Paris AFP in Spanish 0204 GMT 25 Apr 81

[Text] Santiago, Chile, 24 Apr (AFP) -- It was reported here today that the Chilean Government will control satellite television broadcasts to homes, thus avoiding the importing of special antennas.

The U.S. Federal Communications Commission's decision to authorize the installation of a communications satellite capable of sending television broadcasts directly to home television sets is currently being studied by Chilean officials.

Ignacio Astete, deputy director of the government Social Communications Agency (DINACOS), said that the new radio and television law we are writing considers this alternative and refers to it in very general terms.

The new television service will be put into operation by the U.S. COMSAT enterprise by putting in orbit a communications satellite with the necessary technical equipment to broadcast directly to home television sets without a television channel or an earth station.

This satellite, however, will not be ready to operate before 1985, therefore governments will have time to regulate this new type of broadcast.

Astete indicated that to see these broadcasts it will be necessary to have special antennas and that their importation can be controlled.

He added that in the case of Chile, the Telecommunications Under Secretariat would have to grant to an enterprise that requests it a frequency to broadcast these programs.

WORLDWIDE AFFAIRS

'UPI,' 'ANTARA' SIGN NEWS COOPERATION ACCORD

BK220829 Jakarta OANA in English 0735 GMT 22 Apr 81

["Pool item"]

[Text] Jakarta, 22 Apr (ANTARA/OANA) -- The UNITED PRESS INTERNATIONAL (UPI) news agency of the United States and the ANTARA NATIONAL NEWS AGENCY of Indonesia Tuesday [21 April] signed a cooperation agreement in the field of telephotography, telecommunications and other fields of the press.

Signing the cooperation agreement documents were Paul Wedel, Southeast Asia UPI representative for his agency with seat in Singapore and August Marpaung, general manager for the ANTARA NEWS AGENCY.

The agreement also provides the possibility for ANTARA to file news reports from points throughout the world using UPI communications facilities to Jakarta.

The PRESS TRUST OF INDIA (PTI) at present is also sending news reports from Bombay to Jakarta via UPI telecommunication facilities.

The signing ceremony, held at ANTARA's head office here, was also attended by Mohammad Nahar, deputy general manager; director for foreign relations Mashud Sosrojudho and other ANTARA staff officials.

Also present on UPI's side was Mrs. Isabelle Ismail, UPI correspondent in Jakarta.

Meantime another caller of August Marpaung was Mauru Garsag Nini, first secretary of the Italian Embassy here.

The Marpaung-Nini meeting discussed the possibility of cooperation between ANTARA and the Italian news agency ANSA.

Nini arrived in Jakarta a month ago. He had been assigned to the Italian Embassy in Bonn, West Germany before coming to Jakarta.

'INA,' SENEGALESE AGENCY AGREEMENT--Dakar, 25 Apr (INA)--INA and AGENCE DE PRESSE SENEGALAISE signed a joint cooperation agreement here today. Under this agreement, the two agencies will exchange news, information, press documents and press delegations. They will also facilitate the tasks of the two agencies' envoys and correspondents. The agreement was signed for INA by its regional director in Paris Husayn 'Ali and for the AGENCE DE PRESSE SENEGALAISE by its director general (Amadu Diyang). It was signed on the occasion of Vice President Muhyi al-Din Ma'ruf's visit to Senegal, which was concluded today. [Text] [JN251922 Baghdad INA in Arabic 1745 GMT 25 Apr 81]

JAPAN-DPRK TELEPHONE LINK--According to a government source on the evening of 17 April, a shortwave direct telephone circuit was opened between the Kokusai Denshin Denwa Company (KDD--president: Motokazu Masuda) and the DPRK on the same day. Telephone communications between Japan and North Korea in the past were conducted via Beijing over a shortwave circuit, with 500 calls made from the Japanese side and 1,000 from the North Korean side each month. [Text] [OW221403 Naha RYUKYU SHIMPO in Japanese 19 Apr 81 Morning Edition p 2]

COMMUNICATION SATELLITE LAUNCH--The experimental communications satellite "Apple" will be launched next June. This information was given by Minister of State for Science and Technology C.P.N. Singh in the Upper House of Parliament today. The satellite, which is fully indigenous, was ready on time but its launching had to be postponed several times because of the failure of the launch vehicle of the European Space Agency, Singh said. The satellite will help improve communications facilities to a great extent. The Tarapore atomic power station will be kept in operation using alternative fuel in case the United States fails to supply enriched uranium under the cooperation agreement. Stating this, the minister told the House that the recent discussion between an Indian delegation and the U.S. Government on the matter was of a preliminary nature and will be continued. [Text] [BE231050 Delhi General Overseas Service in English 1000 GMT 23 Apr 81]

MICROWAVE TRANSMISSION STATION--Minister of Information Datuk Mohamed Rahmat said today that the 6.5 million ringgit microwave transmission station in (Gunong Ledang) in (Tangkar) when completed at the end of this year would provide better radio and television reception in the northern Johor region. The station was now under construction. He said another project to improve the broadcasting service in the southern region was the setting up of an auditorium in Johor Baharu. [BKO11545 Kuala Lumpur Domestic Service in English 1130 GMT 1 May 81]

SUBMARINE CABLE SYSTEM--The Indian Ocean Commonwealth Submarine Cable System is nearing completion and is expected to be fully operational next month. A statement issued by the Ministry of Energy, Telecommunications and Post in Kuala Lumpur today said the cable, with 480 high-quality circuits for telephone, telex, telegraph and data services, would provide better links between Malaysia and the outside world. The terminal ends of the cable system are at Kuala Muda in peninsular Malaysia and Madras, Xindia. Seven participating countries—Australia, Britain, Canada, India, Sri Lanka, Singapore and Malaysia—would sign the construction and maintenance agreement in Kuala Lumpur on 4 May. [Kuala Lumpur International Service in English 0830 GMT 3 May 81 BK]

#### MINISTER COMMENTS ON CASE COMMUNICATIONS 1976-1980

Prague PTT REVUE in Crech Jan 81 No 1 pp 2-3

[Commentary by Eng Vlastimil Chalupa, CSc, Minister of Communications of CSSR: "We Shall Meet the 16th CPCZ Congress by Successfully Fulfilling the Tasks of the Sixth Five-Year Plan"]

[Text]. In 1981 we enter the first half of the eighties, a period during which we shall continue implementing the general line of the CPCZ aiming at further general development of our socialist country. This development is a continuation of the period of the Sixth Five-Year Plan, during which, thanks to the devoted work of our people, it was possible to raise our economic and a higher degree and thus to ensure the constantly growing level of permual and social consumption.

We anticipate significant events to take place this past, which will concern each of us. The 16th CPCZ Congress which will be held in April will determine the program of the development of our socialist society and, in June, the election for the representative bodies of all levels will take place. We shall also remember the 60th anniversary of the foundation of the CPCZ and its victorious revolutionary path.

The results we achieved in the period of the Sixth Five-Year Plan have been evaluated in relation to all these and some other facts, and further demanding goals, tasks and measures have been set forth for the Seventh Five-Year Plan, particularly for its first year. This applies also to the Czechoslovac communications branch, where a nationwide economic and political meeting of economic managers and party and trade union officials was held on 8 and 9 December 1980. In accordance with the resolutions of the 18th session of the CPCZ Central Committee, the results attained during the period of 1976-1980 by Czechoslovak communications were evaluated there and, at the same time, the intentions of the Seventh Five-Year Plan, namely the specific tasks for 1981, were discussed.

The evaluation of the Sixth Five-Year Plan has shown that the objectives assigned to the communications branch by the 15th CPCZ Congress in the Directives for Economic and Social Development of CSSR in 1976-1980 have on the whole been successfully fulfilled in all areas of communications activity.

The objective to put 470,000-480,000 telephone stations in operation has been exceeded, since 520,000 stations had already been put in operation by 30 November 1980.

The process of automation of the telephone service continued successfully. In comparison with 1975, the share of automated long-distance telephone service increased 17 percent and at present it amounts to 63 percent. In the area of international service it has reached 87 percent. In accordance with the plan, eight central transit telephone offices have been introduced, and the objective of automating 60 percent of junction telephone circuits in 1980 has been exceeded by 3 percent. In the course of the Sixth Pive-Year Plan, cable and radio relay routes and trunk power lines were opened in accordance with the plan, which contributed to significant extension of the capacity of the long-distance tele-communication network. The largest construction in the whole history of Czechslovak telecommunications was put in operation at the end of 1979—the Contral Telecommunications Building in Prague. At the end of 1980, testing faceimile transmission of the printed pages of RUDE PRAVO over the telecommunication network was commenced.

Nowever, even considering these positive facts, we did not succeed in providing service to the prescribed number of main and private stations to the full extent, and thus a number of shortcomings remain in this area even now. It is the case of the breakdown rate of overhead lines and DR distribution [long-distance distribution] networks, which could be reduced more significantly by improving the organization of work and by more effective utilization of the potential for other tremovation and breakdown prevention. Progressive methods of repair of the subscriber's telephone equipment are not introduced to the required extent or performed in a short time. Shortcomings persist even in the transit capacity of the network, in the organization of the operation in both manual and automated connection of long-distance calls, as well as in other areas. There are problems with telephone bill accounting and settling complaints. We are also trying to improve the marketing service, particularly the standard of the contact of these divisions with the public, as well as the information about the conditions and capacities of the telecommunication network, provided by these divisions.

In the area of radio communications, the objectives stipulated for the development of the transmitting network for the second television channel, including the secondary transmitter network, have been fulfilled completely. All 15 transmitters of the second television channel have been put in operation according to the plan, and the objective to cover 60 percent of the total area of the country by the signal from them has been exceeded by 5 percent. By far most of the basic transmitters of the first television channel have been renovated. The construction of the planned radio transmitters, including specifically the high-powered Liblice, Kosice-Cizatice, Topolna transmitters was completed within the terms given by the plan.

On the other hand, there are problems with the construction of rr [radio relay] lines of the second and third order, and with the construction of the secondary network of television converters, since our industry does not supply the necessary technological equipment in required volumes. Problems persist also in the area

of reliability of the Fadio and television equipment operation, as well as in the area of antenna towers, where the conditions require essentially more attention with regard to reception, maintenance, and repair, as well as in technical solution of further development.

In accordance with the objectives set forth by the plan, progress has also been made in mechanization of work in the area of the postal services, namely in transport junctions. From the point of view of the requirements to achieve good postal services as well as from the point of view of relative savings of labor power, launching automated and semiautomated processing of correspondence and parcel mail has been an important contribution. A concrete demonstration is the introduction of the automated sorting line for correspondence mail in Prague, semiautomated sorting machines, parcel-sorting machines, a considerable number of machines and equipment of small and medium mechanization, as well as the progressive development of container mail transportation. The mechanization of operational and shipping work continued successfully even in the area of the Postal Newspaper Service. The number of subscription copies delivered was increased by 269,000, which represents a significant success of the Postal Newspaper Service in the area of expanding the party press during the Sixth Five-Year Plan.

Positive results have also been achieved in fulfilling one of the most important objectives of the Sixth Five-Year Plan—to increase the quality of communication services for the public. The extension of the office hours in 1,127 post offices and the introduction of joint counters reduced waiting time at the money-order counters in post offices considerably, especially in big cities. The postal services have also been improved in the country by establishing 71 new mobile post offices and motorizing another 756 country delivery districts. In comparison with the first years of the Sixth Five-Year Plan, the breakdown rate of local cable networks in telecommunications has been reduced by a full 60 percent, and at present, apart from a few exceptions, a breakdown of the local network is repaired within 7 days. The breakdown rate has also significantly decreased in radio and television transmitters. Compared with 1975, the number of breakdowns of radio transmitters has decreased by 20 percent, in the second channel television transmitters by 35 percent.

Although the quality standard of the communication services has increased, there are many shortcomings in this area as well as considerable resources, which must be exploited. This is a task to which great attention must be paid in the following period.

It is always necessary to endeavor to provide timely and reliable transport and delivery of articles of all kinds, to decrease the number of losses, damaged or stolen articles of mail, to shorten waiting times at post office counters, and to ensure the culture of the environment together with always appropriate treatment of customers by our employees. A series of serious tasks of this kind is awaiting us also in the area of readiness and quality of the JTS [Standard Telecommunications Network] operation and in the area of radio communications. Therefore, the requirement of efficiency and quality in all communication activities remains the main and decisive objective for 1981; exceptionally intense efforts in this area must concentrate on Prague, Bratislava, and other large towns.

In the period from 1976 to 1980, Czechoslovak communications also successfully fulfilled other significant tasks. These were, among others, carrying out the television transmission of the 22nd Summer Olympic Games in Hoscow, and the Czechoslovak Spartakiada 1980, participating in the organization of the World Exhibition of Postage Stamps Praga 1978, as well as in the construction of the Palace of Culture in Prague.

These mainly good results could only be achieved thanks to the CPCZ Central Committee and the Czechoslovak government, who consistently paid attention to the development of Czechoslovak communications and gave them their full support. Consistent implementation of the leading role of the party in communication organizations, and effective support of the trade union and Youth Federation organizations and, in particular, the devoted work, initiative and activity of the Czechoslovak communication workers were also important factors in attaining these results. One of the examples of the devoted work and initiative was the broad socialist competition, in which more than 90 percent of branch workers participated in various forms.

Having fulfilled the tasks of the past period, we have created conditions for a successful start for further general development of communications in the Seventh Five-Year Plan.

Following the resolution of the Czechoslovak government, referring to the sperational state plan for the development of national economy in 1981. "coffications of plans and indicators have been carried out in our branch, him, together with the directive for 1981, determine the main tasks and objectives of the plan and the activities of the communications branch for this period. We will continue with further gradual implementation of the longterm concept of the general development of communications, and we will exert our best efforts toward the goal of fulfilling the social mission of communications, in response to the constantly growing demands of the society on the services we provide. Striving for maximum efficiency and quality has remained our primary task. Due to complex internal and external conditions of the development of our national economy, the sources for further extensive capital investment will be limited, therefore, we must ensure maximum exploitation of the current fundamental means and provide the necessary maintenance and renovation. in agreement with the given directives, we will ensure on a priority basis further development of communications in Prague, Bratislava, and the coalfield areas of the Northern Buhemia region. In all our activities, we must try to a hieve maximum savings in material, fuel and power consumption, and pay attention to economical and effective employment of the labor force and all alloted means. With yet greater consistency and activity, we will try to discover resources and ensure their wont adequate utilization not only for the benefit of our branch, but for the benefit of the whole society.

The tasks for this year are extraordinarily demanding, and their fulfillment requires not only more effective control and organization, but also more consistent implementation of the leading role of the party in all communication organizations and in all work facilities. Here effective support of trade

union and Youth Pederation organizations will contribute to the fulfillment of the tasks, but above all, devoted work and activity of all workers of our branch is necessary. I am convinced that this activity will be apparent mainly in the form of widely developed socialist competition, to honor the 16th CPCZ Congress and the 60th anniversary of the foundation of our party. Our joint, earnest and goalseeking work will contribute to further development of Czechoslovak communications and to the achievement of high-quality service in all communication activities. In this way we shall also contribute to consistent implementation of the economic and political line of our Communist Party aiming at successful development of our country, further growth of the living standard, and intensified social securities for our citizens.

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C80: 5500/3012

BRAZIL.

#### TELEBRAS HEAD CONDONES TECHNOLOGY THEFT

Brasilia CORRETO BRAZILIENSE in Portuguese 15 Mar 81 p 9

[Text] Porto Alegre--Gen Jose Antonio de Alencastro e Silva, president of TELEBRAS (Brazilian Telecommunications, Inc), stated yesterday in this capital that our domestic technicians--when in search of technology--should not be reluctant to resort to illegal measures, since, "in view of the present circumstances, we may even go so far as to steal technology. If it is necessary to steal, let us steal; and we do not need to be ashamed of this, for others are doing that."

This statement, published day before yesterday in ZERO HORA was followed by excerpts of an impromptu speech General Alencastro e Silva gave in the auditorium of Rio Grande Telecommunications Company (CET) before approximately 200 people—mostly company technicians—as part of a series of speeches commemorating the firm's 19th anniversary. The TELEBRAS president said that, meanwhile, initial steps have already been taken to establish Brazilian technology.

In the president's opinion, the telecommunications system is being treated by the government's economic organizations like a rejected child, as indicated by the fact that in 1980 43 billion cruzeiros were withdrawn from the National Telecommunications Fund. Even so, by the beginning of 1985, a Brazilian satellite will be in operation; it will have 24 repeaters, each with a capacity of 1,000 simultaneous conversations. Brazil will be able to lease the satellite and save \$5 million per year paid in rent.

This year, we are anticipating three telephone rate adjustments, according to General Alencastro e Silva. Possibly beginning 1 April, there will be a 14.7 percent increase, and the other two will occur on 1 July and 1 October.

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BRAZIL.

TELECOMOUNICATIONS FINANCIAL OUTLOOK FOR 1981 TEMBED PAVORABLE

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 5 Apr 81 p 53

(Article by Ethevaldo Siqueira)

[Text] Jose Antonio de Alencastro e Silva, president of TELEBRAS [Brazilian Telecommunications, Inc], feels confident about the outlook of the telecommunications sector this year. Although the general budget of the TELEBRAS System was cut from 138 to 115 billion cruzeiros in January, there are possibilities that the investment ceiling in this sector might be raised due to funds being generated by the firms themselves in the exploitation of their services.

ilencastra said that "1980 was perhaps the worst year in our history; it was a year in which we made the least investment in real terms. The lates were adjusted at levels such lower than those of inflation."

The policy approved by the president of the republic in view of proposals made by the CDE (Economic Development Council) calls for rates which will make it possible for the firms to be self-sufficient.

"I can state with assurance," Alencastra says, "that as a result of this new position taken by the government, TELEBRAS will be able to achieve complete financial autonomy in a short time through the process of self-support and that this will provide conditions whereby Brazilian telecommunications will be able to keep pace with the country's needs. We shall be able to establish the foundations required by Brazilian society at the beginning of the great revolution--namely, keeping the people informed."

In the opinion of the TELEBRAS president, the new criteria for approval of sectorial investments "were as though the government suddenly became aware of the importance of the telecommunications program and the need to overcome the problems which accumulated during 5 years of excessively drastic cuts."

What About the FNT (National Telecommunications Fund)?

Alencastro recalled that when steps were taken to revamp this sector, in about 1969 or 1970, Brazil did not have enough volume—or a "critical number"—of telephone lines. Income generated by the telephone system in the first years of operation of the Ministry of Communications and TELEBRAS was insufficient to finance expansion of the national network at acceptable levels. In view of this situation, we had to

FRT. For this reason, the telecommunications sector is now in debt, although at acceptable levels and limits, but we cannot yet do without the FRT. For more than about 5 years we shall have to count on total or almost total funds supplied by the FRT."

Alencastro believes that in the future the FNT funds can be applied to projects of a broader social nature, such as the rural telephone system, telecommunications for the Amazon River region, research and development, personnel training and others.

In the next 5 years, the TELEBRAS System's debt will be almost paid off, according to Alencastro. "From 1986 on, the sector will be self-supporting. We shall be able to grow with our own resources within the levels required by the country."

#### Realistic Rates

In the opinion of TELEBRAS, telephone and telecommunications rates--now readjusted quarterly--should be maintained at realistic levels. What does this mean?

"Realistic rates are those which compensate for capital expended, cover the cost of services and permit continuous expansion of the telecommunications system. They should not reach the level of the rate of inflation. They may always remain lower but within specific criteria. Stated simply, the adjustment rate should equal the result one gets by subtracting gains in productivity and gains in the graduated economy from the rate of inflation."

In the opinion of the TELEBRAS president, operating 7 million telephones costs less per unit than operating 5 million or less. Brazil is heading toward a network of 8 million telephones, and this will provide for greater profits than at the beginning of the 1970's.

Alencastro says that one of the indications of better productivity in the rate of expansion of the TELEBRAS System is the number of employees per 1,000 telephone terminals or principal lines. "In 1973, we had 33 employees per 1,000 terminals. We now have only 17."

To the extent that we are able to reduce operating costs and increase productivity, the results of that effort should be transferred to the user, the subscriber, the shareholders and employees of the TELEBRAS System, according to Alencastro. "We want to offer better services at progressively lower rates. But the criteria used in adjusting those rate: should take into consideration the need for continuous expansion of the services."

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BRAZIL

SEI STUDY SHOWS COMPUTER INDUSTRY HAS 17 PERCENT OF MARKET

Rio de Janeiro GAZETA MERCANTIL in Portuguese 3 Apr 81 p 9

[Article by Brasilia correspondent Plavio Rogerio Troyano]

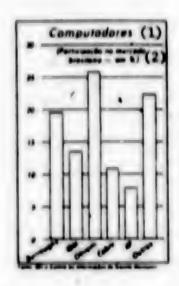
[Text] "The fact that companies with totally national capital now hold about 17 percent of the Brazilian computer market proves that the reserve market, supported by the Special Computer Secretariat (SEI), was functioning. Without that reserve, national participation would now be about zero." This opinion was expressed by Arthur Pereira Nunes of SEI's Subsecretariat of Services who conducted a survey last year to determine how many computers—from mini to giant size—were installed in the country and in operation.

of the tabulation of the data surprised everyone. Not only did our domestic industry leave the realm of symbolic participation 3 years ago but also Brazilian Computers and Systems, Inc (COBRA) now has almost 55 percent of the minicomputers installed in the country and operating regularly.

The survey-first of a series to compile a registry of Brazilian computer resources—was carried out on instructions from Henrique Costabile, director of SEI's Subsecretariat of Services, and its purpose is to "facilitate grants to accompany the development of computer funds available to the country." According to Pereira Nunes, in the second half of this year the subsecretariat will conduct another survey, this time in collaboration with the users of the machines. The intention to quantify the cost incurred by companies or public organizations in processing data and determine the labor supply in that sector. In addition, a study will be made of the level and effectiveness of the technical assistance supplied by the manufacturers.

#### Profile

"foncern for the user," Pereira Nunes says, "was also felt during the first survey; it was particularly desired to know the number of computers in Brazil. This was true to the extent that only machines actually installed and in operation were tabulated. The tabulation showed that there are 8,844 computers operating in the country, with multinational companies amply dominating the equipment supply; the machines are principally of the Class 4, 5 and 6 types (medium, large and extremely large). The extremely large are those which have more than 4 million bits.



Key: 1. Computers 2. Percentage participation in the Brazilian market Source: SEI and GAZETA MERCANTIL Information Center

In this market IBM do Brasil S.A. is responsible for 69.9 percent of the supply, with 56 units installed. Burroughs is closely behind IBM with 29 units, representing 25.5 percent of the market; then, at some distance, come Honeywell Bull with 6 units, or 4.8 percent of the market, and Control Data, with 1 unit, or 1 percent of the market. Domestic firms are not present in this category of computers, and there is no possibility that they could be, according to Pereira Nunes, because of the advanced technology involved; that technology is not yet within reach of the domestic companies due to its cost and the limited scope of the market.

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CHILE

#### BRIEFS

PRIVATE TELECOMMUNICATIONS COMPANY--The first private telecommunications company will start operating in Chile in May. The (Manguehue) company has signed a contract with the National Telecommunications Enterprise (ENTEL) establishing technical and economic conditions for linking communications between the two companies. For a start the company will operate with 250 lines. [PY151729 Santiago Chile Domestic Service in Spanish 1100 GMT 15 Apr 81]

NATIONAL TV NETWORK PLANS PRESENTED TO CABINET

Georgetown GUYANA CHRONICLE in English 2 Apr 81 p 1

[Passages enclosed in slantlines printed in boldface]

[Text] /Guyana is to get its national television network by late next year. Proposals for the establishment of a national television facility were presented to Cabinet this week by the National Television Committee./

The network, when established, will have a capacity to transmit programmes in colour to areas occupied by about 95 per cent of the Guyana population and will be accommodated within an expanded Guyana film Centre.

It will be integrated into film and radio production, under the management of the Guyana Broadcasting Corporation, which will, by that time be renamed the Guyana Film and Broadcasting Corporation.

Details relating to training and programming are still being finalised by the Committee. However, the intention is to arrive at a satisfactory programme mix, in terms of news, education and entertainment, and also in terms of local, regional, Third World and international productions—which would best respond to the development and recreational interests and needs of the Guyanese people.

The Committee proposes to investigate fully the viability of assembling television sets locally using local materials, such as wood for the cabinets, whenever possible.

The Government of Guyana has been holding discussions with a number of reputable television manufacturers, including Radio Corporation of America--R.C.A.--of the United States and Thompson CFS in France. A team headed by /Ambassador Lawrence Mann/ will soon visit France to hold further discussions with /Thompson CFS./ The team will also hold talks with relevant officials of the French Government. Other members of the team are Comrades Lambert Philadelphia, Roy Ibbott, L. Beharry and Camille McKenzie./

The National Television Committee has been assisted in its work by a number of local and overseas groups and individuals, including Mr Tony Best, until recently General Manager and /Mr Paul Down/, Chief Engineer of the Caribbean Broadcasting Corporation in Barbados, as well as the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

The National Television Committee is headed by Minister of Information /Frank Campbell/ with Comrade /Lambert Philadelphia/ as Vice Chairman. Other members are /Gwen Parris, Roy Ibbott, Rovin Deodat, Kester Alves, Ron Case, Clem Duncan, Allan Fenty, Shirley Field-Ridley, R. Agrawal, Ismay Griffith, Terrance Holder, Wilbert James/ with /Ave Brewster/ as secretary (GNA).

CSO: 5500

RADIO, TELEVISION DEVELOPMENTS -- The Islamic Consultative Assembly open sessions' debates will be transmitted from the Zahedan center transmitter on 102 and 98 mhz on FM from toda; soon Baluchi programs will be transmitted on that waveband. According to the Central News Unit, the supervisor of the Voice and Vision of the Islanic Republic of Iran, Zahedan Center, said: The Zabol TV transmitter which had previously transmitted programs at a rate of power of 50 watts has also covered a part of Afghanistan [as heard], and the FM transmitters in (?Saravan) and Chah Bahar are amplifying the network's transmissions. Regarding the network expansion plans being implemented throughout the province, he said: At present, six projects are being implemented in this connection, among which are the project for the installation of a FM transmitter in Zabol and the project for commissioning two 50-kw transmitters in Zahedan, which will be operational within 6 months. Meanwhile, in order to expand the network of the Voice of the Islamic Republic of Iran (radio), installation work on a 1-kw transmitter in (/Saravan) and a 10-kw transmitter in Chah Bahar has started; with the completion of this project, the Voice of the Islamic Republic of Iran will also be boosted on AM. The supervisor of the Voice and Vision of the Islamic Republic of Iran Sahedan Center added: The task of installing the generator and other installations of three 600-kw transmitters has started; Iranian engineers have been busy installing and finishing [as heard) these transmitters for the past few days. These transmitters will be able to cover the continents of India and Africa. Finally, regarding the Zabol TV transmitter project, he said: This project is nearly completed; after its commissioning the regions of (?Bazman) and Iranshahr will be able to receive a clear TV picture from this transmitter. [Text] [LD011525 Tehran Domestic Service in Persian 1136 GMT 30 Apr 81]

LUANDA-CABINDA TELEPHONE COMMUNICATIONS—As of the middle of May direct telephone dialing will be possible between Luanda and Cabinda through a dialing sequence to be established. The operation of this sophisticated equipment will be effected through a group of generators that will be installed for the purpose and will guarantee the smooth functioning of the system. It should be noted that both Angolan and Portuguese technicians have been at work on this project and will ensure the maintenance of the 18 automatic circuits involved. [Text] [Luanda JORNAL DE ANGOLA in Portuguese 28 Apr 81 p 1]

CSO: 5500

MEDIUMWAVE TRANSMISSION BEGINS—The Federal Radio Corporation of Nigeria, FRCN, yesterday commenced mediumwave transmission in three states—Anhanbra, Oyo and Kaduna. The broadcasts cover the whole state while all programs in local languages are national in orientation as a deliberate attempt to get to the gransroots. In a goodwill message sent to the station, Dr. [first name indistinct] Mubudu of Anhambra state recalled Radio Nigeria's consistent and enviable record. Chief Mubudu said the enviable programming of the organization was a clear manifestation of the caliber of people who control and operate it. [Text] [ABO20719 Lagos Domestic Service in English 0600 GMT 2 May 81]

SOMAL IA

#### BRIEFS

INTELSAT MEMBERSHIP -- The Somali Democratic Republic has become a member of the International Telecommunications Satellite (INTELSAT) following an agreement recently signed in Washington between the SDR and INTELSAT. The agreement, which was signed for Somalia by its ambassador in Washington, Mohamud Haji Nur, had been approved by the Council of Ministers at the end of last year because of its importance for the Somali people, especially in the field of international telecommunications. [Text] [Mogadishu HORSEED in Italian 10 Apr 81 p 1]

#### BROADCASTING SERVICE INCREASES PROGRAMMING

Mbabane THE TIMES OF SWAZILAND in English 24 Apr 81 pp 1, 5

(Text) The Swaziland Broadcasting Service says that from May 4 S.B.S. airtime will be increased.

Morning programmes will now begin at 4.35 instead of 5.35 and end at 3.15 when schools are in session and at 2 o'clock when schools are closed.

Evening programmes will begin at 5 o'clock and end at 11 o'clock.

During week-ends and public holidays the station will open at 4.55 in the morning and stay open until 11 o'clock at night.

The Swaziland Broadcasting Service is to introduce a series of new programmes which will come into effect simultaneously with the extended broadcast times beginning on Monday, May 4, 1981.

The first 10 minutes news bulletin of the day will be at 5.30 in the morning instead of at 6.30 a.m. There will be a 10 minutes English news bulletin at 6 o'clock.

The present 10 minutes siSwati and English news bulletins at 6.30 and 7 a.m. will be retained, according to the news programme schedule.

Other new programmes include "Asicabangisise," which will be on the air four times a week lasting for only five minutes. It will be followed at 9.15 by a feature programme on business entitled "Temabhizinisi" every Monday, and by "Ekhatsi nekhatsi," "Hlabelela Ngwane," "Phone-In" and "Takho Ngwane" on Tuesdays, Wednesdays, Thursdays and Fridays.

CSO: 5500

FRANCO-GERMAN TV SATELLITES--France's National Center for Space Studies announced on 13 March that production of the French and West German direct television broadcast satellites, scheduled for launch in 1984, can get underway now that experts of both countries have approved -- 9 March -- the technical and financial scope of this program pursuant to the Franco-German bilateral agreement of April 1980. The approved total development and production cost of more than 1.2 billion francs (1980 prices) for the two satellites remains consistent with the initial agreement. This program is being financed on a fifty-fifty basis by the FRG and France (625 million francs). CMES officials revealed that with the launching of the French TDF-1 satellite. France's share of the TDF-1 program will amount to approximately 980 million france, including total costs of the launch proper and construction of the TDF [French Television Broadcasting Agency] transmitter. Contrary to initial plans, the two satellites will be completely identical. Five channels will be installed on each satellite, but with only three active channels capable of relaying that same number of television programs. Both satellites are to be built by Eurosatellite, a Franco-German industrial consortium consisting of Aerospatiale and MBB [Messerschmitt-Boelkov-Blohm], among others. The decision to launch production of the two satellites was made by a group of experts representing France's CNES and TDF, and Germany's Bundespost and Ministry of Research and Technology. [Text] [Paris AFP SCIENCES in French 19 Har 81 p 11] 8041

TELECOM-1 PROJECT--France and the FRG will jointly use the Telecom-1 data transmission satellite system expected to be operational by 1984. An administrative agreement to this effect was signed on 20 March in Bonn by Gerard Thery, general manager of the French Postal and Telecommunications Service, and Dietrich Elias, West German secretary of state for post and telecommunications. The Telecom-1 project will be the first of its kind in Europe. It will offer new prospects in such fields as "bureautics" [business systems], high-speed remote printing of news publications, dialogue between computers, teleconferencing, and telecomposition. The Telecom-1 system will consist of one operational satellite and one standby satellite, both in geosynchronous orbit, plus another standby satellite on the ground. Gerard Thery also met in Bonn with Kurt Gscheidle, the FRG's minister for posts and telecommunications, with whom he discussed expansion of telecommunications services. [Text] [Paris AFP SCIENCES in French 26 Mar 81 p 19] 8041

GERMAN TV SATELLITE--Dieter Stolte, program manager of the FRG's second television channel (ZDF), has announced that ZDF plans to inaugurate an additional "European" service in 1986 with programs aimed at German viewers and those in neighboring countries as well. Guenther Hase, the ZDF president, insisted that this new

service did not constitute a declaration of war on the Luxembourg Radio Broad-casting and Television System's (RTL) television via satellite service. The German television satellite, one of whose channels is expected to be used for ZDF's second "European" service, will be built jointly by France and the FRG. It is scheduled to be placed in geosynchronous orbit by the Ariane launch vehicle. An agreement for industrial and technical cooperation in the field of communications satellites was signed in April 1980 by Andre Giraud, France's minister of industry, and Volker Hauff, the FRG's minister of research and technology. [Text] [Paris AFP SCIENCES in French 26 Mar 81 p 19] 8041

#### NATIONAL DEFENSE OBJECTIVES OF ELECTRONICS INDUSTRY RAD

Lisbon EXPRESSO in Portuguese 31 Jan 81 (Supplement) p 20

[Article by Armed Forces General Staff member Col Rodrigo Leitao: "Electronics and Communications in National Defense"]

[Text] The objectives of national defense are to maintain and develop the nation's human, material, economic, and financial potentials. The Armed Forces participate in this effort not only in war but also in peace.

The organizational structure of the Armed Forces and the specific characteristics of the elements constituting it are enormously helpful in development efforts influenced by adverse economic or other factors so that the national interest persuaded the government to decide that this effort must be implemented.

The Armed Forces therefore must prepare themselves to carry out all missions assigned to them in the best possible fashion.

The changes in the TO's have led to a study of new command, control, and communications systems implying the reequipment and training of operating and logistics personnel dealing with the necessary means of communication.

A situation study on the national potentials concerning electronics and telecommunications was prepared for the purpose of contributing to national development and guaranteeing a greater degree of independence. This involves the human potential in R&D and technology, the production industries, the service industries, public telecommunications, and the communications systems of government agencies and public and private enterprises. The conclusions arrived at are indicated below.

#### Current Situation

The universities, the institutions of higher learning, and the government laboratory resources are far from capable of coming up with a satisfactory response to the training of higher-level technicians in software for ADP, information systems, public telecommunications systems, industrial technology, and hardware and software in microelectronics.

The same can be said about the training of technicians. Techniques in this field have developed and are becoming more and more complex, giving rise to new specialties. The lack of objectivity in the courses as compared to the requirements and

the absence of vocational training efforts are the reasons that persuaded us to consider this factor as being crucial.

In the field of technology, we find that there is no knowledge of printed circuit technologies and microelectronics (thin and thick film and hybrid) and know-how in electronic systems involving VHF, UHF, and digital switching as well as know-how in the field of software.

Regarding the electronics and telecommunications industry, its viability in Portugal is being discussed in high-level circles, involving plans for secondary development projects; this effort has developed and in 1979 involved a total of 15,200 workers who produced 13.7 million contos worth, that is to say, 900 contos per worker. During that year, this effort contributed about 10 million contos to our exports. All of these are private industry establishments and most of them work with foreign capital, in other words, they work toward objectives that are not at all guided by the nation's defense concerns and development potential.

Those that are run with domestic capital are struggling with tremendous financial difficulties and consequently their main objective is just to survive.

The public telecommunications system situation seems to us quite clear if we realize the following:

in 1980, we had about 11 telephones per 100 inhabitants and that is half of the rigure in Spain and Greece in 1978, one-third of Austria, Italy, France, and Belgium, one-fourth of Great Britain, the FRG, Norway, and Denmark, and one-sixth of Switzerland and Sweden.

As far as we can tell now, that figure will have been doubled within 6 or 7 years.

The communications systems of government agencies or private concerns—apart from the problem of frequencies—do not follow any kind of coordinated planning effort that would enable them to become sources of development and to contribute to national defense.

In the radar field, we are completely dependent on foreign countries in spite of the fundamental importance of this aspect in air and maritime navigation, in national defense, fishing, etc.

We were unable to determine what the situation is regarding ADP and information science, both of which are indispensable to any government agency, to the Armed Forces, as well as to the service, processing, and extraction industries.

Finally we might add that the government does not assign importance to capital investments in R&D in spite of the multiplying effects which that produces on the economy.

Could it be that the Portuguese managers and economists are unaware of the fact that expenditures on R&D constitute one of the indicators of a country's state of economic health?

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